

WHAT IS CLAIMED IS:

1. A protection film forming method of forming at least two layers of protection films for covering an electronic component mounted on a surface of a substrate, method comprising:

a film forming step where a mask having an opening corresponding to the electronic component mounted on the surface of said substrate is disposed apart from said substrate by a predetermined first distance, and a film forming material is deposited through the opening of said mask onto said substrate and the electronic component as a first layer of protection film; and

a film forming step where said mask is disposed apart from said substrate by a second distance longer than said first distance, and a film forming material is deposited through the opening of said mask onto said substrate and the electronic component as a second layer of protection film,

wherein the steps are performed in turn, thereby at least forming the first layer of protection film covering the electronic component and the second layer of protection film for covering beyond the first layer of protection film.

2. A protection film forming method of forming at least two layers of protection films for covering an electronic component mounted on a surface of a substrate, method comprising:

a film forming step where a mask having an opening corresponding to the electronic component mounted on the surface of said substrate is disposed between said substrate and a vapor source and a film forming material from the vapor source is deposited, through the opening of the mask disposed apart from said substrate by a predetermined first distance, onto said substrate and the electronic component as a first layer of protection film; and

a film forming step where said mask is disposed apart from said substrate by a second distance longer than said first distance, and a film forming material is deposited through the opening of said mask onto said substrate and the electronic component as a second layer of protection film,

wherein said steps are performed in turn maintaining a distance between said substrate and the vapor source constant, thereby at least forming the first layer of protection film for covering the electronic component and the second layer of protection film for covering beyond the first layer of protection film.

3. The protection film forming method for covering the electronic component as claimed in claim 1 or 2, wherein the distance of said mask from said substrate is progressively set at a longer distance so as to further deposit an additional protection film onto the previous protection film and to form third or more layers of protection films for covering beyond the previous protection film.

4. A protection film forming method of forming at least two layers of protection films for covering an electronic component mounted on a surface of a substrate, method comprising:

a film forming step where a mask having an opening corresponding to the electronic component mounted on the surface of said substrate is disposed between said substrate and a vapor source, and a film forming material from the vapor source disposed apart from said substrate by a predetermined first distance is deposited through the opening of said mask onto said substrate and the electronic component as a first layer of protection film; and

a film forming step where said vapor source is disposed apart from said substrate by a second distance shorter than said first distance, and a film forming material is deposited through the opening of said mask onto said substrate and the electronic component as a second layer of protection film,

wherein said steps are performed in turn maintaining a distance between said substrate and the mask constant, thereby at least forming the first layer of protection film for covering the electronic component and the second layer of protection film for covering beyond the first layer of protection film.

5. The protection film forming method for covering the electronic component as claimed in claim 4, wherein the distance of said vapor source from said substrate is set stepwise

at a shorter distance so as to further deposit an additional protection film onto the previous protection film and to form third or more layers of protection films for covering beyond the previous protection film.

6. The protection film forming method for covering the electronic component as claimed in claim 2 or 4, wherein respective crucibles having thereon a shutter for individually accommodating said film forming material are disposed in the same chamber, and in each film forming step where said protection film is deposited on the substrate and the electronic component in turn, the shutter provided for each of said crucibles is selectively opened so that the protection films of different film forming materials are formed in turn.

7. An electronic device having at least two layers of protection films so as to cover an electronic component mounted on a surface of a substrate, at least comprising:

    a first layer of protection film obtained by disposing a mask having an opening corresponding to the electronic component mounted on the surface of said substrate apart from said mask by a predetermined first distance, and depositing a film forming material, through the opening of said mask, onto said substrate and the electronic component; and

    a second layer of protection film obtained by disposing said mask apart from said substrate by a second distance longer than the first distance, and depositing a film forming material, through the opening of said mask, onto said substrate and the electronic component,

    wherein the second layer of protection film is formed on said first layer of protection film so as to cover beyond the first layer of protection film.

8. An electronic device having at least two layers of protection films so as to cover an electronic component mounted on a surface of a substrate, at least comprising:

    a first layer of protection film obtained by disposing a mask having an opening corresponding to the electronic component mounted on the surface of said substrate between said substrate and a vapor source and depositing a film forming material from

the vapor source, through the opening of the mask apart from said substrate by a predetermined first distance, onto said substrate and the electronic component; and

a second layer of protection film obtained by disposing said mask apart from said substrate by a predetermined second distance longer than the first distance, and depositing a film forming material, through the opening of said mask, onto said substrate and the electronic component,

wherein the second layer of protection film is formed on said first layer of protection film so as to cover beyond the first layer of protection film.

9. An electronic device having at least two layers of protection films so as to cover an electronic component mounted on a surface of a said substrate, at least comprising:

a first layer of protection film obtained by disposing a mask having an opening corresponding to the electronic component mounted on the surface of said substrate between said substrate and a vapor source and depositing a film forming material from the vapor source, through the opening of said mask apart from said substrate by a predetermined first distance, onto said substrate and the electronic component; and

a second layer of protection film obtained by disposing said vapor source apart from said substrate by a second distance shorter than the first distance, and depositing a film forming material from the vapor source, through the opening of said mask, onto said substrate and the electronic component,

wherein the second layer of protection film is formed on said first layer of protection film so as to cover beyond the first layer of protection film.

10. The electronic device having the protection films as claimed in any one of claims 7 to 9, wherein said substrate is formed of a transparent material, and the electronic component mounted on the surface of said substrate is an organic EL device having at least a first electrode laminated to and formed on the substrate, an organic luminescence material layer, and a second electrode.